

TOSHIBA LED LAMP GaAs RED LIGHT EMISSION

# TLRA120(Z)

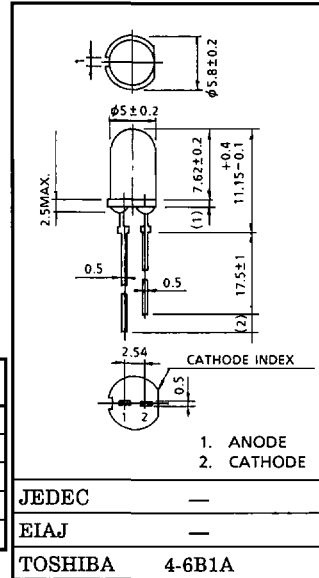
PANEL CIRCUIT INDICATOR

Unit in mm

- Excellent Bright Red
- All Plastic Mold Type : Colorless Clear Lens
- Low Drive Current, Practical Brightness are Achieved
- Plastic Molded Colorless Clear lens Provides for High Contrast of ON-OFF Ratio.
- Lighting Linearity Provides for an Application from DC to Pulse Operation.

MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC              | SYMBOL           | RATING  | UNIT |
|-----------------------------|------------------|---------|------|
| Forward Current (DC)        | I <sub>F</sub>   | 50      | mA   |
| Reverse Voltage             | V <sub>R</sub>   | 4       | V    |
| Power Dissipation           | P <sub>D</sub>   | 125     | mW   |
| Operating Temperature Range | T <sub>opr</sub> | -20~75  | °C   |
| Storage Temperature Range   | T <sub>stg</sub> | -30~100 | °C   |



Weight : 0.31g

ELECTRO-OPTICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC           | SYMBOL          | TEST CONDITION              | MIN. | TYP. | MAX. | UNIT |
|--------------------------|-----------------|-----------------------------|------|------|------|------|
| Forward Voltage          | V <sub>F</sub>  | I <sub>F</sub> =20mA        | —    | 1.85 | 2.4  | V    |
| Reverse Current          | I <sub>R</sub>  | V <sub>R</sub> =4V          | —    | —    | 100  | μA   |
| Luminous Intensity       | TLRA120 (Z)     | I <sub>F</sub> =20mA (Note) | 272  | 700  | —    | mcd  |
|                          | TLRA120 (QR, Z) |                             | 272  | —    | 1290 |      |
|                          | TLRA120 (RS, Z) |                             | 476  | —    | 2300 |      |
| Peak Emission Wavelength | λ <sub>p</sub>  | I <sub>F</sub> =20mA        | —    | 660  | —    | nm   |
| Spectral Line Half Width | Δλ              | I <sub>F</sub> =20mA        | —    | 25   | —    | nm   |

(Note) Rank selection carried out under next standard range respectively, although it needs ±15% additional for guaranteed limits.

Q : 320~640mcd, R : 560~1120mcd, S : 1000~2000mcd.

Each rank products is classified by package unit, and (QR, Z) includes Q and R, (RS, Z) includes R and S.

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## PRECAUTION

Please be careful of the followings.

- Soldering temperature : 260°C MAX. Soldering time : 3s MAX.  
(Soldering portion of lead : bellow the lead stopper)
- If the lead is formed, the lead should be formed up to 5mm from the body of the device without forming stress to the resin. Soldering should be performed after lead forming.
- This device should not be used in high-temperature, high-humidity environments.

